

R E M A R K S

In the Office Action dated November 17, 2006, a typographical error was noted in claim 1, which has been corrected.

Claims 1, 2, 5 and 7-12 were rejected under 35 U.S.C. §102(e) as being anticipated by DeMeester et al.

In response, the subject matter of claims 7 and 8 has been embodied in independent claim 1, and claims 7 and 8 have been cancelled. Subject matter comparable to the subject matter of claims 7 and 8 also has been embodied in independent claims 11 and 12.

Applicant submits that the subject matter of original claims 7 and 8, now embodied in independent claims 1, 11 and 12, is not disclosed in the DeMeester et al. reference, and therefore Applicant traverses the original rejection of claims 7 and 8 as being anticipated by DeMeester et al., and submits the following arguments in support of the patentability of independent claims 1, 11 and 12.

The DeMeester et al. reference discloses a magnetic resonance imaging method and apparatus wherein blood flow is measured within a selected region by phase contrast MR angiography. A cardiac cycle plot is constructed by Fourier transformation of data that represents a measured velocity of blood flow through a navigator region, which has been defined by selective excitation. On the basis of the cardiac cycle plot and the navigator measurements, the data acquisition is synchronized or gated to portions of the cardiac cycle.

Although information regarding the cardiac cycle that is used for gating purposes is obtained in the DeMeester et al. reference, there is no disclosure in that

reference to display that information, since the gating appears to be automatically undertaken once that information is obtained.

The DeMeester et al. reference, therefore, does not disclose or suggest the manner of displaying the result of the flow measurement in the tissue area, and the details, i.e., the format, of the display of the blood flow in the DeMeester et al. reference does not even appear to be of particular importance. Presumably any suitable, conventional display format can be used. For example, in Figure 2 of the DeMeester et al. reference, the time curve of the blood flow rate of only a single voxel or pixel is shown. The primary purpose of the disclosure in the DeMeester et al. reference is related to the aforementioned cardiac gating of the acquisition of the magnetic resonance data, based on the phase of the cardiac cycle. Therefore, the construction of a cardiac cycle plot is sufficient for the purposes disclosed in DeMeester et al., and this can be derived from only a small amount of pixel information in the selected region (tissue area). In principle, the information can be derived from only one pixel.

Therefore, in the DeMeester et al. reference there is no disclosure, and no need, to display information relating to blood flow in either of the display formats that were set forth in original claims 7 and 8, now embodied in independent claims 1, 11 and 12.

In substantiating the rejection of claim 7, the Examiner stated the passages at column 4, lines 44-62 and column 5, lines 21-26 disclose displaying a speed-result image of the selected tissue, and the Examiner generally cited Figure 2 of DeMeester et al. in substantiating the rejection of claim 8, stating the cardiac cycle plot in Figure 2 is equivalent to a speed profile. While these passages cited by the

Examiner do pertain to the blood flow rate, and Figure 2 of the DeMeester et al. reference does display the blood flow rate with respect to time, neither of those passages, nor Figure 2, constitutes a disclosure to display a speed-resolved *image* that includes the tissue area, in either of the formats that were originally included in claims 7 and 8, and that are now included in claims 1, 11 and 12. At most, the DeMeester et al. reference discloses displaying blood flow rate *information*, but does not disclose displaying that information in the context of a speed-resolved image that includes the tissue area. Moreover, for the reasons discussed above, the blood flow rate information that is displayed in the DeMeester et al. reference is not comparable to that displayed in the subject matter disclosed and claimed in the present application.

Therefore, Applicant submits that the DeMeester et al. reference does not disclose all of the elements of claims 1, 2, 5 or 9-12 as arranged and operating in those claims, and thus does not anticipate any of those claims.

Claims 3, 4 and 6 were rejected under 35 U.S.C. §103(a) as being unpatentable over DeMeester et al. in view of known image processing methods. This rejection is respectfully traversed because even if the Examiner is correct regarding the characterization of known image processing methods, each of claims 3, 4 and 6 embody the subject matter of independent claim 1 therein, and for the reasons discussed above the DeMeester et al. reference does not disclose all of the elements of amended independent claim 1.

Additionally, independent claim 12 has been editorially revised to conform to the recent guidelines regarding the claiming of computer programs, and is submitted

to be in conformity with those guidelines and therefore in conformity with the requirements for statutory subject matter under 35 U.S.C. §101.

All claims of the application are therefore submitted to be in condition for allowance, and early reconsideration of the application is respectfully requested.

Submitted by,

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